

## Health Problems experienced by Peri-menopausal Women and their Perception towards Menopause

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### ABSTRACT

**Background:** Perimenopause is a period of physiologic changes in the women's lives when they approach reproductive senescence along with temporal changes in health and quality of life. During this period, many women present with problems of hot flushes; altered mood and sleep; and vaginal and sexual changes. The objective of this study was to identify the health problems experienced and perception towards menopause among perimenopausal women of Kathmandu.

**Methods:** This descriptive cross-sectional study was carried out among purposively selected 180 women from two wards of Nagarjun Municipality, Kathmandu, who were aged 45 to 55 years. By using a semi-structured interview schedule, face to face interview was taken at the respondents' residence. The collected data were analyzed using descriptive and inferential statistical techniques.

**Results:** The mean age of the respondents was  $48.98 \pm 3.908$  years and their mean body mass index was  $27.42 \pm 3.645$  kg/m<sup>2</sup>. About 35.0% of the respondents had experienced cessation of menstruation and their mean age at menopause was  $47.84 \pm 4.41$  years. The common physical problems reported by them were joint and muscle pain (17.2%), hot flushes (14.4%) and night sweats (13.3%). Vaginal itching (16.7%), loss of libido (10.6%) and dry vagina (5%) were commonly reported sexual problems. Anxiety (16.7%), poor memory (8.9%), and irritability (7.2%) were the psychological problems reported by them. Most (77.8%) of them had a positive perception and the rest (22.2%) had a negative perception towards menopause. Their perception status was significantly associated with their age and family type.

**Conclusions:** Perimenopausal women experience several physical, sexual and psychological problems during the menopause transition.

**Keywords:** Health problems; perception towards menopause; perimenopause.

### INTRODUCTION

Menopause is the cessation of final menstrual period. It is a universal and irreversible part of women's ageing process. Hormonal changes and clinical symptoms occur over a period of time prior to menopause is termed as perimenopause, which begins 2-10 years before menopause.<sup>1</sup> During this period, estrogen levels decline and levels of follicle-stimulating and luteinizing hormone increase. These hormonal changes are associated with various symptoms, which can interact to develop morbidity. Physical problems are the most commonly reported, but sexual problems and mood changes have been found to worsen the health of women.<sup>2-5</sup>

Menopausal transition is a challenging period in the life for many middle aged women that might affect the quality of their lives.<sup>3,6</sup> In our context, majority of published studies were conducted in hospital setting where symptomatic cases come for medical check-up. But, there were limited published studies found in community setting. Therefore, this study aims to find out the common health problems experienced and perception towards menopause among perimenopausal women of Syuchatar area so that remedial measures can be planned and implemented.

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## METHODS

A descriptive cross-sectional study design was used for the study. The study population was the women aged 45-55 years and residing in Nagarjun Municipality. Among 5 major areas of Nagarjun Municipality i.e., Ichangunarayan, Sitapaila, Ramkot, Bhimdhunga and Syuchatar, one area was selected using the lottery method for the study. While doing the lottery, Syuchatar was selected. Syuchatar covers 2 wards among 10 wards of this Municipality i.e., ward number 9 and 10. The study was conducted in these 2 wards of Nagarjun Municipality from February 14 to April 13, 2021.

Ethical approval for the research study was taken from the Institutional Review Committee (IRC) of the Nepalese Army Institute of Health Sciences (NAIHS) (Regd. No 397). Then, written permission for data collection was taken from Nagarjun Municipality office and ward number 9 and 10 offices. Before initiating data collection, two Female Community Health Volunteers (FCHVS) as research assistants were identified and trained on data collection and ethical aspects to be followed during data collection. These FCHVs identified the eligible potential respondents by house-to-house visit. FCHVs clearly explained the objectives of the study to the respondents and took informed written consent before data collection. Respondents were assured on keeping their information confidential and use for the study purpose only. Data were collected through face-to-face interview at the respondent's home. It took about 20 minutes to collect data from each respondent. Privacy was maintained by interviewing the respondents in a separate room or corner in their house. In the initial 3 days of data collection, research assistants were supervised by the principal author and provided feedback also.

One woman per house, residing in the selected wards, aged 45 to 55 years and willing to participate in the study was included in the study. Women who had surgical menopause i.e. hysterectomy and oophorectomy were excluded from the study. National Institute in Aging documented that perimenopause or the menopausal transition most often begins between ages 45 and 55.<sup>6</sup> Perimenopause begins with the first onset of menstrual irregularity and ends after 1 year of cessation of menstruation (menopause).<sup>2</sup> According to Johns Hopkins Medicine (2020), this transition can begin between 2-10 years before menopause.<sup>7</sup> A total of 180 women were purposively selected as participants in the study. The sample size was calculated by using Slovin's formula i.e., 162 (using finite female population of study site as 5,724) with 95% confidence interval, 8% allowable error and non-response rate of 6%.

A semi-structured interview schedule was used for data collection. It was developed after extensive literature review and consulting with expert i.e., obstetrician and gynecologist. The schedule consisted of 3 sections. Section I consisted of socio-demographic information of the respondent; section II consisted of questions related to physical, sexual and psychological problems experienced by respondent during perimenopausal period and section III consisted of questions related to their perception towards perimenopause. Perception was measured by using a 5-point Likert Scale i.e., strongly disagree, disagree, neutral, agree, and strongly agree. During analysis, these were summed into positive and negative perception. Initially, the instrument was developed in English language. Then it was translated into Nepali language by the principal investigator. The Nepali version instrument was pretested among 18 women of Ichangunarayan area to check for clarity, sequencing, feasibility and internal consistency of the instrument. Based on pretesting, few modifications were done in the instrument before finalization for data collection.

Data was analyzed by using the Statistical Package for Social Sciences (SPSS) version 16 software. Descriptive statistics i.e. frequency, percentage, mean, standard deviation was used to describe the findings. Inferential statistics i.e., chi-square test was used to measure the association of perception of menopause with their socio-demographic variables.

## RESULTS

In this study, around 64% of respondents were  $\leq 50$  years and 36% were  $\geq 51$  years. The mean age of respondent was 48.98 years ( $SD \pm 3.908$ ) and their mean body mass index was 27.42 kg/ m<sup>2</sup> ( $SD \pm 3.645$ ). Among 180 respondents, 117 (65.0%) were menstruating women whereas cessation of menstruation (menopause) had occurred in 63 (35.0%). The mean age of menopause among menopausal women was 47.84 years ( $SD \pm 4.411$ ).

Based on respondents' medical records within 1 month, 21.7% were suffering from high blood pressure, followed by diabetes (10%) and thyroid problems (8.3%) and taking medicines regularly.

Regarding the physical problems, table 1 reveals that 24.4% of the respondents were experiencing headaches, followed by joint and muscle pain (17.2%), hot flushes (14.4%), night sweats (13.3%) and difficulty in getting to sleep (13.3%)

**Table 1. Physical Problems experienced by Respondents. n=180**

Physical problems*	Number	Percentage
Headache	44	24.4
Joint and muscle pain	31	17.2
Hot flushes	26	14.4
Night sweats	24	13.3
Difficulty getting to sleep	24	13.3
Difficulty staying asleep	18	10.0
Itching	17	9.4
Tiredness	17	9.4
Bloating	13	7.2
Heart palpitations	9	5.0
Urinary incontinence	8	4.4
Burning micturition	6	3.3
Recurrent bladder infection	6	3.3
Breast tenderness	4	2.2

**\*Multiple responses**

Table 2 presents the sexual problems experienced by the respondents. Among the different sexual problems, vaginal itching, loss of libido, and dry vagina were experienced by 16.7%, 10.6% and 5.0% respectively.

**Table 2. Sexual Problems experienced by Respondents. n=180**

Sexual problems*	Number	Percentage
Vaginal itching	30	16.7
Loss of libido	19	10.6
Dry vagina	9	5.0
Dyspareunia	4	2.2

**\*Multiple responses****Table 5. Association of Respondents' Perception of Menopause with Socio-demographic Variables**

Variables	Perception of Menopause		Chi-square	p-Value
	Positive No.	Negative No.		
<b>Age</b>				
≤50 years	82	33	7.721	0.005
>51 years	58	7		

In regards to psychological problems, table 3 indicates that 16.7% of the respondents were experiencing anxiety followed by poor memory (8.9%) and irritability (7.2%).

**Table 3. Psychological Problems experienced by Respondents. n=180**

Psychological problems*	Number	Percentage
Anxiety	30	16.7
Poor memory	16	8.9
Irritability	13	7.2
Depression	7	3.9
Mood swings	6	3.3
Poor concentration	3	1.7

**\*Multiple responses**

Around four-fifth (77.8%) of respondents had positive perception i.e., menopause means no more periods, no more worry about contraception and it marks a new life phase whereas 22.2% had negative perception i.e., menopause means loss of youth and loss of fertility which is summarized as proportion with positive and negative perception and presented in table 4.

**Table 4. Respondents' Perception towards Menopause.**

Perception	Number	Percentage
Positive	140	77.8
Negative	40	22.2
Total	180	100.0

According to table 5, respondent's age and type of family was significantly associated with the perception of their menopause (p-value <0.05) indicating that respondents belonging to the younger age group and joint family system had significantly more positive perception than those from the older age group and from nuclear families.

Table 5. Association of Respondents' Perception of Menopause with Socio-demographic Variables

Religion				
Hindu	126	39	0.1962*	
Others	14	1		
Ethnicity				
Brahmin/Chhetri	98	26	0.329	0.547
Others	42	14		
Occupation				
Homemaker	93	31	1.779	0.182
Others	47	9		
Education				
Illiterate	28	5	1.169	0.28
Literate	112	35		
Type of family				
Nuclear	53	27	11.07	0.001
Joint/ Extended	87	13		

\*Fisher exact test

## DISCUSSION

Among 180 perimenopausal women, 117 (65%) had regular menstruation whereas cessation of menstruation (menopause) occurred among 63 (35%). The mean age of their menopause among the menopausal women (n=63) was 47.84±4.411 years. This finding is consistent with the findings of other studies from Nepal i.e., the mean age of menopause was identified as 48.7 years in a study conducted by Rajbhandari et al. in Kathmandu valley and 46.3 years in a study conducted by Ghimire et.al. in Kapilvastu district. Whereas the mean age at menopause among Singaporean and Italian women was 49 years and 50.9 years respectively.<sup>8-11</sup> The differences in findings might be due to differences in sample size and study setting.

In the present study, 19% of women had healthy weight (BMI 18.5-24.9), 55% women were overweight (BMI 25-29.9), and 26% women were obese (BMI 30 and above). The interpretation of these values was based on Centers for Disease Control and Prevention (CDC) guideline.<sup>12</sup> Consistent finding was reported among Taiwanese perimenopausal women where 25% of the women were obese (BMI ≥ 27 kg/m<sup>2</sup>).<sup>13</sup> In another study conducted among perimenopausal and post-menopausal women, about 17% were obese, 39% overweight and 44% normal body mass, which were somehow consistent with

current study.<sup>14</sup> Various literature documented that as women go through menopause, levels of estrogen and energy expenditure decrease, and visceral fat, glucose, and insulin increase, leading to an increase in metabolic syndrome. Body weight is also influenced by environmental factors i.e. accessibility and availability of fast foods, energy-dense foods and limited physical activity which might strongly affect body weight and adiposity.<sup>15-17</sup>

In the present study, 17.2% of perimenopausal women were experiencing joint and muscle pain followed by hot flushes (14.4%), night sweats (13.3%) and difficulty getting to sleep (13.3%). Much higher percentage of similar problems were identified in a study conducted among 356 women aged 40-65 years in Malaysia i.e., joint and muscular discomfort (80.1%), sleeping problems (52.2%) and hot flushes and sweating (41.6%).<sup>18</sup> A hospital-based cross-sectional study from Kathmandu Medical College Teaching Hospital among 100 perimenopausal and postmenopausal women also identified higher frequencies of similar problems i.e., hot flushes (42%), and night sweats (24%).<sup>19</sup> Another study at Paropakar Maternity and Women's Hospital, Kathmandu found the first menopausal symptom as vasomotor flush (62%) with 50% having a significant sleep problem.<sup>20</sup> Similar study involving 1,054 participants aged 40 to 60 years in Gongshu China documented that

the most prevalent symptoms suffered by all women were muscle/joint pain (54.5%), and fatigue (46.1%).<sup>21</sup> The discrepancy in findings might be due to differences in study setting because the present study was conducted in community with general population and other most studies were conducted in hospital setting where most of the symptomatic cases come for health check-up.

In the present study, vaginal itching (16.7%), loss of libido (10.6%) and, dry vagina (5%) were reported as common sexual problems of perimenopausal women. Much higher percentage i.e., 77.21% of middle-aged Polish women reported urogenital symptoms who came for health check-up in women's health clinic.<sup>22</sup> According to study conducted in India among 200 perimenopausal inpatient women, 17.5% had vaginal dryness, 8.5% had urinary incontinence and 7% had a loss of libido which are somehow consistent with current study.<sup>23</sup>

In the present study, only 3.9% perimenopausal women reported depressive symptoms. Much higher percentage of depressive symptoms i.e., 41.8% was identified in a community-based study among 685 women of 45 to 59 years in Malatya among perimenopausal and postmenopausal women.<sup>24</sup> The cognitive level and the mental status of the patients suffering from perimenopausal syndrome was explored in Shanghai and it was identified that 77.29% women had a depressive tendency and 8.36% had depressive disorder.<sup>25</sup> Other psychological problems reported by women in the present study were: anxiety (16.7%), poor memory (8.9%), and irritability (7.2%). Inconsistent findings were reported in a similar study conducted among 40-60 years women attending gynecology OPD of India where most prevalent symptoms identified were physical and mental exhaustion (61.3%); followed by symptoms of anxiety (48.6%); irritability (45.3%) and depressive mood (38.0%). Perimenopausal women experienced higher prevalence of somatic and psychological symptoms compared to premenopausal and postmenopausal women.<sup>26</sup> Similar findings were reported in various studies conducted in India, and Pakistan also.<sup>27, 28</sup>

In the present study, 77.8% perimenopausal women had a positive perception about menopause i.e., menopause means no more periods, no more worry about contraception and it marks a new life phase. Similarly, 22.2% had a negative perception i.e., menopause means loss of youth and loss of fertility. These findings are comparable with the hospital based study in Karachi among 73 women where 83.6% women were satisfied with menopause and 84.3% viewed it positive; and multicenter study in Granada, Spain where 54.5% had a positive view about menopause.<sup>29, 30</sup>

The problems of peri-menopausal women were based on self-reported data of respondent. None of the objective instruments was used to measure the stated problems.

## CONCLUSIONS

The study concludes that the common physical problems of perimenopausal women are headache, joint and muscle pain, hot flushes, night sweats, difficulty in sleeping and palpitations. Similarly vaginal itching and loss of libido are common sexual problems and anxiety, poor memory and irritability are common psychological problems of perimenopausal women. Perimenopausal women from this community have a positive perception regarding menopause and their perception tend to be influenced by their age group and family type.

## CONFLICT OF INTEREST

None.

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